

DEVELOPMENT PLAN

EAST BOSTON HARBOR SIDE



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EAST BOSTON HARBORSIDE DEVELOPMENT PLAN

PIERS 1-5





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City of Boston
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Boston Redevelopment Authority
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September, 1984

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Principal Consultant
Arthur Erickson Architects

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This Development Plan is the product of a three year participatory planning effort undertaken for the redevelopment of the MassPort-owned East Boston Piers 1-5. It has been prepared with the assistance of the East Boston Project Advisory Committee (PAC), by the Boston Redevelopment Authority and Arthur Erickson Architects. The Plan is a proposal to transform the now derelict and underutilized 56-acre waterfront property into an active mixed-use community which offers the potential for the realization of benefits by the community, MassPort, and the City of Boston.

The citizens advisory group specifically formed for this project - the East Boston Project Advisory Committee - has provided much valuable assistance during the formulation of this Plan. The Authority wishes to express its gratitude to the following Committee members for their assistance and guidance throughout the planning process:

Emilio Favorito - President
William Manning - Vice President
Lucy Ferullo - Secretary
Alice Christopher - Treasurer
Anna DeFronzo
George DiLorenzo
James Dorgan
Evelyn Farnum
Blossom Hoag
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Mary Ellen Welch

Previous Members: Past Officers:

Patrick Rosa	President - James Rose
Joseph Wardell	Treasurer - Emilio Favorito

SUMMARY

I

INTRODUCTION

A. Report Organization

The Development Plan for the East Boston Harborside site is presented in this report in six sections.

→ Section I, (Introduction), first provides a context for the Plan by providing general background information on the site and its environs. Second, it provides an overview of the broad participatory planning process undertaken from the conception of the project to the finalization of the Development Plan. Third, it outlines the social, economic, environmental, and fiscal development goals established during the planning process and briefly discusses how each is addressed in the Plan.

Section II, Project Context, presents a detailed analysis of the existing area and site features by examining first the neighborhood's social characteristics, land uses, and transportation and second, the project site's assets and constraints in order to provide the necessary background information required to determine potential site uses.

Section III, Development Options, first outlines the potential site uses deemed to be appropriate for the site in consideration of project area and site characteristics. Next, it discusses the necessary assumptions for the development of the site. These relate to accessibility, project area, market factors, and development. Finally, it discusses the project's development premium costs and presents the results of the market analysis and financial feasibility study undertaken for

each potential use in order to determine which of these uses would be financially appropriate for the site.

Section IV, Development Plan, presents the finalized Plan which evolved in consideration of goals, area/site characteristics, development premium costs, market analysis and financial feasibility findings. Prior to a discussion of the individual Plan components, the planning principles underlying the design concept are presented. These relate to site access, land use, views, built form and parking. The Plan components including the land and building use program, open space and pedestrian circulation, transportation, and urban design and environmental impacts are then discussed.

Section V, Financial Plan and Implementation, discusses areas of importance for the implementation of the Plan. First, the project costs and revenues, including public and private operational and development costs and projected income to the City of Boston and MassPort are reviewed. The second part of this section finalizes the presentation of the Plan by reviewing various implementation-related activities/issues such as parcelization/ownership, development schedule, phasing, interim uses, funding and developer selection process, and includes the provision for termination of the Plan.

Section VI, Conclusion, provides a few brief closing remarks.

Two additional supporting documents - Appendices and Bibliography, supplement this report. The Appendices contain technical memoranda and studies generated and utilized during the formulation of the Plan, as well as Contracts and Agreements entered into by the East Boston Project Advisory Committee, Massachusetts Port Authority, and Boston Redevelopment Authority for the development of the project site. The Bibliography, in addition to a listing of documentation generated specifically for the purpose of this Plan, contains reference to studies and reports which provide information related to the history, current characteristics, and future of the project site and project area. The information listed in these additional references have been utilized in the formulation of this Plan and are provided for the purpose of guiding interested parties to additional background information.

B. Background

The site for which this Development Plan is proposed - East Boston Piers 1-5, is owned by Massachusetts Port Authority and is located in Boston's northeastern harbor neighborhood of East Boston.

The 56-acre site occupies the southern portion of Jeffries Point community of East Boston, located across the Harbor from Downtown Boston and Fort Point Channel. Bordered by Marginal Street to the north, Lewis Street to the west, Boston Shipyard Corporation to the east, and the Harbor to the south, the site is in close proximity to

Logan International Airport, Route 1A, and the Maverick Square MBTA station. Of its 56 acres of space, 15 acres are piers, 20 acres are solid land located directly to the north of and adjacent to the piers, and 21 acres are water surrounding the piers.

The property, once the site of an active port and shipbuilding industry is currently predominantly vacant except for a 196,000 sq.ft. shed on Pier 1 previously utilized as a general cargo terminal. The Massachusetts Port Authority took over the operation of the pier port facilities from the Penn Central Railroad in 1970. Between that time and December, 1972, marine-related structures on Piers 3 and 4 were stripped to dock level and the grain and water towers, and non-essential railway trackage were removed. Since then the piers have been underutilized and only used for tying of tugboats, independent fish and lobster boats, and out-of-service vessels.

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MassPort has acknowledged that the use of the East Boston piers should be for purposes other than port-related activities.* This recognition is based upon a number of considerations outlined in MassPort's formal vote on the redevelopment of the East Boston Piers 1-5, adopted May 21, 1981, by the MassPort Board. These include the following:

1. "...the Port Properties currently operate at a deficit... reuse of the property at a higher economic use could potentially generate revenues offsetting the Port Properties' deficit to some significant extent;
2. "...the portion of the Port Properties' debt due from the Authority to the Commonwealth attributable to the property is approximately \$8,128,000... unrecovered capital costs incurred since acquisition by the Authority with respect to the property total approximately \$1,500,000..operating expenses attributable to the property on a current basis exceed those revenues derived from its commitment to both maritime-dependent and non-maritime-dependent uses;

*MassPort is empowered to dispose of its property by lease if it is determined that the property has ceased to be needed for its original acquisition purpose, and is not needed or is no longer useful in connection with the maintenance and operation of the Port properties.

3. "...utilization of the property's general cargo terminal declined rapidly following the container revolution, and subsequent to studies by ABT Associates, Inc. and Frankel in 1970, and Maguire-Frankel in 1974, the 1976 Master Plan of the Authority concluded as a matter of policy, later sustained by further studies by Frankel in 1977:

'Massachusetts Port Authority piers...in East Boston are not needed for seaport activities, which can be better accommodated at other harbor locations. The best use of this land is for residential, recreational or other purposes related to the development of the East Boston community...';

4. "...the Authority is currently rehabilitating its Castle Island property and has also acquired and is improving other property in South Boston at the Boston Marine Industrial Park which it is anticipated, on the basis of maritime business strategy studies undertaken by the Authority in 1980...will adequately accommodate expected future demand for public terminal services for containerized cargo; and, further it is anticipated that future demand for general cargo facilities can be accommodated on other Port Properties; and
5. "...preliminary land use planning studies for the redevelopment of the property...suggest a range of possible

reuses for the property including, without limitation, residential, recreational, marine, and commercial;"

C. Planning Process

On August 26, 1981, as a result of MassPort's decision that the East Boston Piers were no longer needed for port activities, MassPort entered into a seven-year Agreement with the Boston Redevelopment Authority for the planning and development of the site. This Agreement outlines various planning activities to be carried out by the BRA leading to the preparation of a Development Plan and Program for the East Boston Piers 1-5. Specifically, BRA's planning activities as outlined in this Agreement include: formulating a planning, development, and financing program; designating parcels for development; selecting developers; entering into leases with designated developers jointly with MassPort; and monitoring the construction and development process.

The Agreement also stipulates that this planning and development process is to be undertaken by the BRA with the full participation of the East Boston community. As a first step in developing a broad participatory process, the Boston Redevelopment Authority formed a citizens advisory group called the East Boston Project Advisory Committee. The Boston Redevelopment Authority entered into an Agreement with the Committee on August 29, 1981, hence insuring full citizen participation in the planning process.

This Agreement outlines the common objectives and responsibilities of the Boston Redevelopment Authority and the East Boston Project Advisory Committee for jointly formulating a sound development program for the Piers.

Since its formation, the Project Advisory Committee has met on nearly fifty occasions and provided most valuable assistance throughout the planning process in the formulation of this Development Plan. The PAC meetings were advertised in local papers and were open to interested residents of the community and all other interested parties. In addition, three neighborhood meetings were held in various locations in the neighborhood to encourage and broaden public discussion and receive community input into the formulation of a Plan. These meetings generated extensive discussion on the goals and objectives to be addressed, development opportunities and limitations presented by the site, and alternative development concepts. Work undertaken during these meetings culminated in two working reports previous to the finalization of this Development Plan: (1) Interim Report - June, 1982; and (2) Land Use Program and Preliminary Development Plan - December, 1983. Both reports were issued to the public by the BRA at the request of the PAC.

The Interim Report summarizes and reviews all activities of the PAC from August, 1981 to June, 1982. It contains important background information on the planning process, site characteristics, development opportunities/limitations; social, economic,

environmental, and fiscal goals identified by the PAC for the Plan; four alternative mixed-use development schemes; and the necessary subsequent work to be undertaken in the planning process.

The Land Use Program and Preliminary Development Plan includes a summary and review of all activities of the PAC to the end of 1983. It outlines a land use program and preliminary development Plan based on the goals identified by the PAC, land use analysis, site evaluation, and market and financial factors; and once again, lays out the necessary subsequent work to be undertaken in the planning process.

BRA staff have assisted the Committee in these efforts providing information concerning development procedures, employment and tax generation characteristics of various types of development, potential neighborhood environmental impact, basic methods of financial analysis, and the site's physical conditions.

Following the issuance and broad public discussions of the Interim Report and indication of basic support of the concepts presented, the PAC requested additional assistance from the BRA to advance the overall project to the next phase. Consultant assistance was solicited by the BRA, resulting in the Authority's entering into a professional services contract with the firm of Arthur Erickson Architects of Vancouver, Canada.

As a principal consultant for the project, Arthur Erickson Architects assembled a nine-member consultant team specialized in

the areas of planning, civil and geotechnical engineering, economic and marketing analysis, transportation, landscape architecture, environmental planning, and costing/construction to undertake the various studies necessary for the Development Plan.

The consultants produced a number of technical memoranda and reports and attended meetings with the PAC, the BRA staff, and the larger East Boston community. At these meetings, considerable public discussion was generated on consultant findings, and modifications to proposals were made as a result of consideration of concerns voiced. These efforts culminated in first the Land Use Program and Preliminary Development Plan, and second in a finalized Development Plan for the Piers presented in this document.

D. Goals

As the preliminary step in the planning process, the Project Advisory Committee established a number of social, economic, environmental, and fiscal goals in the development of the project site. These goals provided continuous guidance throughout the planning process and formed the foundation of the resulting Plan. They were, as follows:

1. Social

Goal #1: TO EXPAND HOUSING OPPORTUNITIES

Why: East Boston's housing stock is predominantly 1-3 family dwellings

constructed prior to 1930. The vast majority of new unit construction has taken the form of subsidized housing. The age and conditions of the remaining stock provides limited housing options. There is a need to expand housing opportunities for existing East Boston residents, as well as for new residents to the community.

How: The Development Plan provides for new residential construction. These units will provide attractive housing opportunities as a result of being located on waterfront property as well as being in an area containing many complementary uses such as recreational space, water-related activities, commercial (office and retail) facilities, and public transportation.

2. Goal #2: TO COMPLEMENT THE CULTURAL AND HISTORICAL ASPECTS OF EAST BOSTON

Why: Because of its geography, East Boston has always relied heavily on the waterfront for its pleasure as well as its economic well-being. Many residents remember the waterfront activity of the not-too-distant past and welcome the opportunity of capturing some of that flavor again.

How: The Development Plan provides for the inclusion of a wide variety of water-related recreational and light industrial uses. These uses, by contributing to the economy of the community and by making the waterfront accessible to the public for work and pleasure purposes, will appropriately complement the past rich maritime history and culture of the area.

Goal #3: TO PROVIDE ADDITIONAL
OPEN SPACE, RECREATIONAL
AREAS, AND ACCESS TO
THE WATERFRONT

Why: East Boston is a densely populated community with inadequate recreational facilities to meet the needs of local residents. Although the neighborhood is surrounded by water, there are few locations which offer residents a place to walk, rest, play, and enjoy views which are unique.

How: The Development Plan provides for a significant amount of open space and waterfront access through public parks, walkways along and stretching onto the water, and water-related recreational activities. The layout and massing of the structures also ensures that visual access to the water is maximized.

2. Economic

→ Goal #1: 4

TO CREATE EMPLOYMENT OPPORTUNITIES FOR EAST BOSTON RESIDENTS

Why: East Boston has a higher unemployment rate than most neighborhoods in the City.* Hence, the neighborhood desperately needs to stimulate its local economic growth through revitalizing existing industry and commerce and supporting the development of job opportunities through carefully planned, well-balanced and compatible expansion of water and harbor uses along portions of its waterfront.

→ How: The Development Plan includes land uses such as office, retail, and water-related light industrial space. These uses will generate not only temporary jobs during their construction, but also a significant number of permanent jobs for East Boston residents.

*(1980 unemployment figures indicate a higher unemployment rate for East Boston (7.4%) than the City as a whole (6.1%) and the fourth highest unemployment rate among 16 neighborhoods).

→ Goal #2: TO EXPAND THE VARIETY
OF COMMERCIAL FACILITIES IN
BOSTON'S HARBOR/EAST BOSTON

Why: There is a need to expand commercial facilities and improve the quantity/quality of goods and services available within the Harbor area and the East Boston neighborhood. The Piers present an excellent opportunity for expanding new commercial trade and general commerce in Boston's Harbor.

How: The Development Plan utilizes the unique character and location of the site in addressing this goal by including a number of commercial uses that are water-dependent, → water-related, and water-enhanced.

3. Environmental

→ Goal #1: TO IMPROVE THE
PHYSICAL APPEARANCE
OF EAST BOSTON

Why: Most of East Boston's housing stock is old, traffic on residential streets is congested, much waterfront property is vacant or under-utilized, and there are many vacant lots dispersed throughout the community.

How: The development Plan provides an opportunity to enrich the visual aesthetics and character of the community.

Development of the piers can be the catalyst for community-wide physical upgrading. In recognition of this fact, the Plan proposes an exciting mixed-use waterfront development that relates to the surrounding community.

Goal #2: TO INTEGRATE DEVELOPMENT WITH OVERALL HARBOR ACTIVITIES

Why: If the East Boston community is to be an active part of the overall Boston Harbor, it is necessary that the development of its waterfront be integrated into and linked with other Harbor activities.

How: The Development Plan emphasizes water uses that would have a direct linkage to other activities in the Harbor. Also, the ferry slip, included in this Plan as an assumed transportation option, will provide strong linkage between East Boston and other points of the Boston Harbor.

Goal #3: TO PROVIDE FOR WATER-DEPENDENT ACTIVITIES

Why: The East Boston community is sensitive to the important role the Harbor plays in the city, the state, and the region, and recognizes that this natural resource should be utilized by any development on the waterfront. Water-dependent activities, if properly

selected and located, can be compatible with residential areas and enliven the social and economic character of the neighborhood.

How: The Development Plan includes a variety of water-dependent activities which are recreational, commercial, and light industrial in nature.

→ Goal #4: →
TO EXPAND TRANSPORTATION
OPTIONS

Why: The East Boston site provides an exceptional opportunity to expand Harbor transportation options between the East Boston community, downtown Boston, and other neighborhoods along the Harbor. Also, in view of already existing vehicular traffic problems in the area, it is important that transportation planning in and around the project aim to minimize traffic impacts on the existing community.

How: The plan expands transportation options by: (1) making provisions for a ferry/water taxi service between the project site, downtown Boston, and other neighborhoods along the Harbor; (2) providing for easy pedestrian and vehicular access to the Maverick Square MBTA station; and (3) providing for easy access to Route 1A and the Summer/

Callahan Tunnels. Expansion of transportation options in the Plan is accompanied by efforts to minimize traffic impact on the surrounding community.

4. Fiscal

Goal #1: TO GENERATE REVENUES FOR MASSPORT

Why: Since the Piers have been predominantly vacant and underutilized for over a decade, they have been a fiscal drain on the owner of the site - MassPort. The agency is now interested in having the site developed so that it is a source of revenue.

How: The Development Plan includes a number of land uses for which land would be leased from MassPort, hence providing the agency with a steady flow of revenues. The inclusion of considerable commercial, residential, light industrial uses, and a large commercial marina ensures that the resulting revenues will reverse the current negative cash flow.

Goal #2: TO GENERATE REVENUES FOR THE CITY

Why: In order to maintain/improve its services, the City needs to increase its revenues. To date, this

income has been limited to small amounts of payments in-lieu-of-taxes since the predominantly vacant site has had no owners/users other than MassPort.

How: The Plan provides for the development of underutilized waterfront property which can provide substantial amounts of new tax revenues to the City. Tax revenues will be realized from income-generating uses which will be leased to developers. Two components of the Plan - housing and office space, will be particularly lucrative sources of city tax revenues.

Goal #3: TO GENERATE REVENUES FOR AREA RESIDENTS

Why: East Boston has one of the highest unemployment rates in the City. As well, its per capita average income is among the lowest. There is a strong need to create employment opportunities and channel revenues generated by the new development to community residents.

How: The Plan includes temporary and permanent employment - generating uses which will present job opportunities to area residents, thereby providing for the sharing of revenues from the new development by the community.

II

PROJECT CONTEXT

A. Area Characteristics

The following description of the area's demographic characteristics, land uses, and transportation, and the project site's assets and constraints serves two functions in relation to the proposed Development Plan: (1) it provides an understanding of how new development should complement and enhance what already exists; and (2) it highlights needs of the community, thereby providing guidance for the kinds of deficiencies the Plan should attempt to address.

1. Demographic Characteristics

The East Boston community is a stable, homogeneous neighborhood. Of the 32,178 (1980) residents, the large majority of the population is of Italian descent and have lived at their present address for at least fifteen years.

Important issues facing the community are jobs, economic stability, and growth. East Boston's median family income in 1980 was \$11,153 - 11% less than that for the City. A higher than average portion of the East Boston labor force is employed in clerical or administrative support positions and a relatively low percent is in managerial and professional occupations. In 1980,

East Boston also had a higher level of unemployment (7.4%) than the City average (6.1%). Employment opportunities within the neighborhood are still limited. As a result, a high percentage of East Boston residents are employed in other areas of the City or in surrounding municipalities.

The community currently faces a number of additional problems, including: geographic isolation from the rest of the City, poor traffic circulation, transportation access difficulties, noise and air pollution created by Logan Airport, commercial decline, lack of open/recreational space, many vacant lots scattered throughout the neighborhood, and considerable amount of vacant/underutilized waterfront land.

The sharing of a variety of problems by a homogeneous and stable population has created a community which is concerned about its growth and development. The way in which Piers 1-5 are ultimately utilized is, in fact, viewed by many community residents as one of the most critical of East Boston's planning concerns and one that will have a major impact on the future direction and growth of Jeffries Point and the rest of East Boston.

2. Land Uses

The area adjacent to the project site

for future

consists of residential, commercial (office and retail), institutional, open space, and industrial land uses.*

Residential land use is the primary use north of the project site, and consists of two and three-decker row houses containing single and multi-dwelling units. Also included in residential uses in the area are two large apartment complexes: the 414-unit Maverick Housing Development to the west, and the 300-unit elderly and family Heritage Apartment complex immediately to the north-west of the project site. Both of these development serve the housing needs of low-income residents.

Commercial uses exist in small areas inter-mixed within the residential uses and serve primarily the immediate community. The concentration of office and retail uses around Maverick Square serves the wider community and is in need of revitalization.

Small areas of public institutional land uses consist of educational, religious, and fire station facilities, and adequately serve the area.

Adjacent to the eastern boundary of the site is an industrial land use, the Boston Shipyard Corporation, Inc. The facility, comprising of 19 acres of land,

* This area covers parts of Jeffries Point and Maverick Square. It is bounded by Maverick Street on the north, and the Inner Harbor on the west, east, and south.

10 } buildings, 5 piers, and 2 large floating dry
docks is used for shipbuilding and repair.
The company has aspirations to expand with
incorporation of heavy industrial production
into its activities.

Recreational open space primarily consists of two areas: the North Ferry Park, and the Jeffries Point Park. In proportion to the size of the community, open space is inadequate.

A considerable amount of vacant, unutilized space also exists in the area. This consists of a number of scattered development lots including some immediately adjacent to the site along Marginal Street and the large vacant waterfront area adjacent to the western boundary of the project site. Although some single parcels have been sold to abutters providing increased private open space, and some have been developed into victory gardens or neighborhood parking spaces, the vast majority of the vacant lots remain underutilized.

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3. Transportation

The project area offers opportunities for utilizing both the public and private transportation systems.

The entire project site is within a few minutes walk of the Maverick Square MBTA Station which provides easy access to downtown Boston, the Logan International Airport, communities to the north, and through line changes Cambridge and the South Shore.

A number of residential streets accommodating both two-way and one-way traffic exist to the north of the project site. Currently direct vehicular access to the site is provided from South Bremen Street. Access to Logan Airport is provided by nearby Route 1A which also connects to the Sumner and Callahan Tunnels linking to downtown Boston.

As a result of the narrow width of most of the residential streets in the area and the high level of parking they accommodate, the street system is at times congested. Any new traffic-generating development in the area should, therefore, be accompanied by improvements to the existing neighborhood street system in order to alleviate any negative impacts on the adjacent residential areas. The existing Conrail right-of-way between Bremen and Orleans Streets offers the potential of constructing a new road that connects to Porter Street if the potential traffic

generated by the new development cannot be accommodated on the existing street system. A traffic impact analysis has indicated, however, that additional traffic generated by this Plan can be accommodated on the existing street system provided certain improvements are carried out.

In addition to the currently existing transportation options over land, the area offers the opportunity for developing a necessary water transportation system through ferry and water-taxi service operating between the project site, downtown Boston, Logan International Airport, and other Harbor neighborhoods.

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IV

DEVELOPMENT PLAN

A. Summary

The East Boston Harborside Development is an attempt to revitalize the 56-acre underutilized and deteriorated waterfront property of East Boston Piers 1-5.

The plan proposes a mixed-use community consisting of residential, office, retail, community museum, community center, open space, marina, and water-related light industrial uses.

A major element of the Plan is the 740,000 sq.ft. of built space which will generate approximately 1,600 temporary and 1,770 permanent jobs as well as \$_____ and \$_____ in lease and tax revenues respectively, over a ____-year period.

→ The amount of built space - 740,000 sq.ft. is the critical mass for the site. As a result, construction either below or above this amount is financially infeasible. This amount of construction is required to cover the approximately \$12 million penalty costs of development. On the other hand, construction above this amount results in greater penalty costs making it economically infeasible to build.

The two major built space components are the commercial and residential developments. A total of 370,000 sq.ft. of commercial space, available for office and retail uses, will be located on the

backlands of Pier 1. This development will be a major source of employment creating approximately 1,600 clerical, administrative, and maintenance jobs. The residential development of 330,000 sq.ft. contains approximately 300 units of three to eight stories on Pier 1. These units contain a mixture of condominiums and rental apartments presenting a most attractive choice of living environment with spectacular views of downtown Boston and skyline, a variety of ancillary services, ample recreational space and activities, and access to the waterfront.

Other built space elements in the Plan include: a 3,000 sq.ft. community museum by the water's edge adjacent to the ferry terminal by the eastern boundary of the site, an 8,000 sq.ft. community center at the northern end of Pier 4, approximately 14,000 sq.ft. of space for water-related, light industrial uses such as boat building and repair on and adjacent to Pier 4 and 14,000 sq.ft. of water-related commercial space for the lobster industry, fishing, and restaurant on Pier Four.

Another major element of the Plan is the ten acres of public open space providing opportunities for a variety of recreational activities. A large, grassed open space on the backlands of Piers 3 and 4 links the existing neighborhood to the edge of the water. The smaller park on Pier 4 provides direct access to the proposed marina. A

public plaza at the water's edge on the south-western corner of the site is convenient for recreational use by both the ferry passengers and employees of the commercial complex. The continuous, public walkway along the entire site by the water's edge and a number of walkways stretching into the water from both sides of Piers 1 and 4 provide the much needed and desired direct access to the water.

A large full-service public commercial marina located on both sides of Pier 1 and the western side of Pier 4 accommodates 525 boats, and responds to a strong existing demand for marina facilities in the Boston Harbor.

The Plan provides for on-site parking to serve all of the new development. A portion of the spaces temporarily provided on surface lots, will eventually be incorporated into structured parking.

The buildings and open space in the Plan have been carefully located and massed to preserve major views from the project site and the project area to the city, the water's edge, and the downtown Boston skyline.

The development will not only result in a revitalization of the project site, but in addition to providing the much needed open space and access to the water, it will present many employment opportunities for the surrounding community. With some 1,800 people

being employed on the site, 660 residents and their visitors, and people visiting and using the marina, museum, restaurant, and parks, there will be substantial economic spin-off into the surrounding community.

B. Planning Principles

1. Site Access

Public Access

DIRECT PUBLIC ACCESS TO THE PROJECT SITE AND ITS WATERFRONT IS MAXIMIZED through extensions of existing street patterns and footpaths to the water's edge, and a continuous waterfront walk along the perimeter of the site offering opportunities for a variety of water-related activities.

Vehicular Access

The Plan provides ADEQUATE VEHICULAR ACCESS to the site at points along Marginal Street and minimizes the impact of increased traffic on the existing street system.

Water Access

A PASSENGER FERRY SERVICE IS ASSUMED TO CONNECT THE PROJECT SITE TO DOWNTOWN BOSTON. The ferry terminal should be located at the southern end of Lewis Street Mall for proximity to the Maverick Square MBTA station, and the commercial/residential development on Pier 1.

2. Land Use

Commercial - Office/Retail

Commercial uses, consisting of office and retail space, are located in the backlands of Pier 1 IN CLOSE PROXIMITY TO the LEWIS STREET MALL AND the MAJOR ACCESS POINT TO THE SITE AT SOUTH BREMEN STREET. This location provides the most convenient access for pedestrians to and from the Maverick Square MBTA station and the ferry terminal at the end of Lewis Street Mall; and hence direct connections to downtown Boston. Proximity to the South Bremen access point also provides convenient vehicular access to downtown and the airport.

Residential

Residential land use is CONCENTRATED ON PIER 1. This location affords the MAXIMUM VIEWS of the waterfront and downtown Boston and is in CLOSE PROXIMITY TO THE COMMERCIAL ZONE. These factors will greatly assist the marketing of units. As well, building the major portion of the new development on Pier 1 will MINIMIZE PENALTY COSTS since Pier 1 requires the least amount of rehabilitation to provide the necessary foundation for the proposed development.

Open Space

Open space land use reflects its PUBLIC NATURE IN ACCESS, LOCATION and CHARACTER and is intended TO SERVE ALL OF THE EAST BOSTON COMMUNITY.

A NETWORK OF OPEN SPACES with a VARIETY OF SIZES AND POTENTIAL ACTIVITIES are proposed. This network ties into existing pedestrian patterns which will be strengthened with landscaping and street improvements. This will result in a more visible integration of the new with the existing and improve the quality of the pedestrian network.

All open space is designated with consideration of EASE OF MAINTENANCE. Provisions for maintenance will be clearly specified and accompany any open space element.

Light Industrial

Light Industrial land use is located at the eastern end of the site ADJACENT TO BOSTON SHIPYARD CORPORATION in order to be COMPATIBLE WITH NON-INDUSTRIAL USES on the site as well as to complement the industrial activities of the Boston Shipyard Corporation.

Marina

A major marina is provided in the development, occupying water area

around Piers 1 and 4. The inclusion of this use RESPONDS TO REGIONAL NEEDS AND LOCAL ACCEPTANCE AND DESIRES.

Sufficient water space for a ferry terminal at the west end of the site, the industrial zone at the east end of the site, and sufficient water frontage for passive and active public activities is maintained.

Piers 3 and 5

Piers 3 and 5 which are in extremely deteriorated condition WILL BE DEMOLISHED in order to provide greater water space for a marina, and water-related light industry, and to eliminate the financial burden of exorbitant repair costs.

3. Views

EXISTING views are PRESERVED AS MUCH AS POSSIBLE in order to promote a sense of relationship to the water and harbor activities, and to minimize Boston skyline view obstruction. These are currently uninterrupted except for the warehouse shed on Pier 1. In the past, views were obscured by an eight-foot brick wall and grain elevator and buildings. Three kinds of views are recognized: (a) VIEW CORRIDORS DOWN EXISTING STREETS perpendicular to Marginal Street and to the waterfront; (b) DIAGONAL VIEWS OF the DOWNTOWN SKYLINE across the project site primarily from Marginal

Street and Jeffries Point; and (c) MULTIPLE VIEWS OF the BOSTON HARBOR, particularly from the Jeffries Point Neighborhood.

VIEW INTERRUPTIONS FROM HERITAGE APARTMENTS are MINIMIZED. As some views will inevitably be obstructed, care is taken to provide alternate amenities.

4. Built Form

Massing of built space ALLOWS FOR MAXIMUM VIEWS OF THE DOWNTOWN. This is achieved by terracing back corners or minimizing the number of stories in consideration of the view corridors. Particular emphasis is placed on views to landmark buildings such as the Customs House Tower.

A VARIETY OF BUILDING HEIGHTS is provided IN THE RESIDENTIAL ZONE on Pier 1 in order to avoid the appearance of a wall.

The EDGE OF THE COMMERCIAL DEVELOPMENT ALONG MARGINAL STREET is KEPT LOW in order to provide a compatible scale to the adjacent Heritage Apartment townhouses.

5. Parking

ADEQUATE PARKING FOR SITE USES is provided within the project area

resulting in no increased parking demand in existing residential areas of Jeffries Point.

The GREATER PROPORTION of parking needs is met with STRUCTURED parking. Interim SURFACE PARKING is DEPRESSED AND LANDSCAPED to minimize intrusion on the adjacent open space areas and obstruction of views from the adjacent neighborhood.

Parking facilities are SHARED AMONG USES that require parking at different hours of the day.

C. Plan Components

1. Land and Building Use Program

Residential

Residential land use consists of 300 townhouse type structures located on Pier 1. These units, bordering both sides of the pier, vary in height from three to eight stories and provide excellent views of the harbor and the Boston skyline. Their proximity to the main access road, the MBTA station, Lewis Street Mall, and the ferry terminal results in a convenient residential location. As well, the units are well connected to the public open spaces and have direct access to the waterfront.

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B. Site Characteristics

1. Location

The site is in an ideal location for a variety of uses and offers excellent opportunities for the development of water-related uses and activities. As well, the close proximity to downtown Boston, Logan International Airport, and public transportation provides a feasible location for office, retail, residential, and light industrial uses that would generate the necessary financial support for the project.

2. Size

The site offers a rare asset available in a location close to the center of a city - 56 acres of essentially vacant land and water space offering the opportunity of implementing a substantial development without the relocation and demolition costs and difficulties often associated with large, urban sites.

3. Views

The site offers spectacular views of the Boston skyline. A number of major view corridors from the neighborhood to the site and the downtown skyline beyond, and from the neighborhood streets and pedestrian ways leading to Marginal Street are of a character and quality which greatly enhance the attractiveness of the site to potential users.

4. Pedestrian Access

Easy pedestrian access to the site currently exists from Maverick Square and the MBTA station through Lewis Street Mall and South Bremen Street. Opportunities for expanding pedestrian access to the site could be capitalized on by extending several other access ways at Orleans, Cottage, Brigham and Ruth Streets, and Public Alley 2001 into the site and to the water's edge.

5. Vehicular Access

The only vehicular access to the site currently existing is from South Bremen Street. A number of other residential streets to the north of the site such as Orleans, Cottage, and Marginal Streets provide for potential vehicular access through extension. However, since these streets are minor residential streets which already handle considerable traffic and are at times congested, any additional development in the area may require circulation modification.

6. Soil Conditions

Prior soils investigation results were reviewed from a condition survey prepared by Storch Associates in January, 1981. The site is generally underlain by blue clay and softer clays and deeper deposits on the Harbor side. The backlands consist of mixed fills of varying density with fill depths ranging

from 8' in the northeastern corner of the site to approximately 20' in the northwestern portion of the site. From the quarrywall toward the harbor, the soil profile consists of 5' to 20' of silts and organic silts over soft blue clay to depths of 80' below mean sea level. Hence, the most suitable areas for construction are located toward Pier 1, while the most unstable areas are adjacent to Piers 3 and 4. This variance in soil conditions will affect future building costs, location, and massing. While building construction is most feasible on the land behind Pier 1, use of the land behind Piers 3 and 4 needs to be restricted to lower density uses. It is anticipated, however, that the less stable backland areas of the site could also be utilized for serviceable roadways, parking, and recreational space by compacting the soils.

7. Pier and Bulkhead Conditions

As a result of lack of maintenance over the past several years, the piers are currently in varying degrees of deterioration.

Pier 1 is the least deteriorated, and with some structural repair, can be built upon.

Piers 3 and 5 are the most seriously deteriorated and cannot be built on without costly repair.

Pier 4 is in somewhat better condition and, with some repairs could support light construction and open space uses.

The granite bulkhead is seriously deteriorated in many sections and requires costly repairs regardless of the type of development on the land site.

8. Structural Conditions

Following the geotechnical review, it is anticipated that all buildings will be founded on either friction piles or end bearing piles, including buildings proposed on the filled "backlands" area.

9. Utility Evaluation

Water Supply: The site is served by municipal water supply under the jurisdiction of the Boston Water & Sewer Commission. The main supply to the site will be from the existing 12" water main in Marginal Street and is adequate to serve the proposed development.

Sanitary Sewage System: The site is served by a 12"x15" diameter sewer line in Marginal Street under the jurisdiction of the Boston Water & Sewer Commission. In addition, there is an MDC trunk sewer in Marginal Street. Inverts of the 12"x15" sewers are adequate to serve the site. An 8" diameter sewer currently serves Pier 1.

Storm Drainage: It is not anticipated that any existing on-site storm drainage would be re-utilized. There are three existing municipal combined overflows crossing the site that would have to be maintained in the final plan. These are:

1. A 24" overflow Northwest of Pier 1.
2. A 30"x36" wood overflow along the easterly side of Pier 3.
3. A 24"x24" wood overflow east of Pier 5.

A conventional piped storm drainage system would be designed for the new site development discharging to the harbor.

Electrical: There is a sufficient electrical network and capacity serving the area down to Marginal Street that can be utilized for new development.

Telephone: There is a sufficient telephone network and capacity serving the area down to Marginal Street that can be utilized for the new development.

10. Noise

Because of the close proximity of the site to Logan Airport, noise is a factor in the development of the site. Federal housing guidelines published by HUD require compatible land use planning in

relation to airports. In order for housing development to be eligible for Federal financing, 65 Ldn (day/night average sound level) is the maximum allowed without noise impact mitigation. According to MassPort's Noise Abatement Divisions, Piers 3, 4, and 5 are between 65-70 Ldn contour and therefore exceed HUD's noise standard. However, exceptions have been made in the past.

11. Height

FAA has indicated that buildings exceeding 150 feet above the airfield elevation of 18 feet may pose a hazard to navigation. MassPort has given assurances to the FAA that it will not erect obstructions on its property. Therefore, construction on the East Boston Piers site must observe FAA standards and restrictions.

III

DEVELOPMENT OPTIONS:

MARKET AND FINANCIAL

FEASIBILITY

A. Summary

The project site offers the opportunity of developing a number of uses that would be appropriate for and attracted to a waterfront location. Potential uses for the site, initially identified by the Project Advisory Committee, included open space, residential, commercial - office/retail, marina, hotel/boatel, restaurant, water-related light industrial, community center, and community museum. Subsequently, market analyses and financial feasibility studies revealed that all of these uses except for hotel/boatel would, in fact, be suitable for the site and should be included in the Development Plan. Commercial, residential, light industrial, and marina uses were determined to be the necessary revenue-producing elements, while open space, community center, and museum, although not income-producing, were identified as essential complementary components. They will not only assist in the marketing of the residential, commercial, and light industrial uses, but also aid in linking the project site to the existing community. Given that certain conditions related to accessibility, area, market, and development are satisfied, the site can be developed in an interesting, attractive, and financially productive manner.

B. Potential Site Uses

Subsequent to identification of development goals and consideration of the project area and project site characteristics, a wide range of potential development uses were considered by the Project Advisory Committee. As indicated in the four alternative development schemes contained in the Interim Report, these uses consisted of the following:

- o Recreational
 - Public open space
 - Full Service Marina
 - Community Museum
- o Residential
- o Commercial
 - Office
 - Retail
 - Lobster Fishery/Fishing
 - Hotel/Boatel
 - Restaurant
 - Ferry/Water-Taxi Service
- o Light Industrial - Water Related
- o Parking

C. Assumptions

It was recognized that a number of conditions were necessary in order for development on the site to have a

greater degree of success. Hence, the following assumptions were made in the development of the site:

Accessibility Conditions

- o Direct roadway linkage to the major arterial highway system - Route 1A which connects to Sumner Tunnel and Logan Airport will be established through modifications to existing road system;
- o Water transportation to downtown Boston via water-taxi or ferry will become a reality.

Area Conditions

- o Visual character and image of the project site will be altered through demolition and removal of derelict piers and site improvement;
- o Visual character of the local environment will continue to improve;
- o Consumer facilities in Maverick Square will be expanded.

Market Conditions

- o Costs of redevelopment will be high, hence necessitating some targeting of uses to high priced markets;

- o The project site will be perceived as a large, highly desirable assemblage available on the Boston waterfront;
- o East Boston will continue to be perceived as being competitive with Cambridge and other suburban locations for uses such as office space.
- o Parking at levels commensurate with a suburban standard will be provided to serve developed office space until perception of the site as more suburban than urban is modified;
- o Condominium market will grow and will continue to pay a high premium for waterfront location;
- o Other precedent setting waterfront developments now in progress or planned will be successful.

Development Conditions

- o Development will be of sufficient size to establish site credibility;
- o There will be a mix of uses that will ensure a reasonable absorption pace, phasing of project implementation, and timely establishment of the project's critical mass;

- o Subsidies to fund costs above these typically supported in the market will be provided from private and public sources;
- o Implementation of the Plan will begin within the next few years.

D. Market Analysis and Financial Feasibility

Market analyses and financial feasibility studies were undertaken in order to determine which of the potential income-producing site uses identified by the Project Advisory Committee would, in fact, be successful in generating revenues. All uses, except hotel/boatel, were found to be viable in consideration of the current local and regional market demand and supply forces, and financial feasibility factors such as development penalty costs, construction costs, and future revenues. The following pages summarize the results of the market analyses and financial feasibility testing by presenting the main conclusions of the studies and the specific findings upon which these conclusions are based.

1. Development Premium Costs

a. Site Preparation Costs

A preliminary estimate indicated that \$11 million (1984 dollars) will be required for site preparation. This represents a fixed cost for Pier 1 and for the repair, demolition, and removal of derelict piers, sea-wall repair, and

the grading of the landfill site to meet flood hazard requirements. Because these costs are fixed, the cost per square foot of buildable area incurred declines as the amount of built space increases until the critical mass of 700,000 square feet is reached.

b. Building Foundation Costs

Building foundation premiums associated with any construction on the 20-acre landfill area of the site have been estimated at approximately \$50.00 per square foot of building footprint constructed. Clearly, the cost per square foot of buildable area is a function of building coverage, and building height. The taller the building and more compact the footprint, the lower the cost. Conversely, the same amount of space constructed in lower buildings would cover more land area and thus incur higher cost.

c. Parking Costs

Because the market for office, industrial, and residential uses is not accustomed to paying for structured parking spaces, any costs incurred to provide these facilities represent an additional development cost premium. Residential condominiums are typically sold to include at least one structured parking space and thus the income from development of these units is sufficient to cover any required structured parking construction. For office use, the

parking cost premiums decline as more of the required parking spaces are placed in surface lots and less is placed in parking garages. However, in any development program which contemplates office space as a primary program element, a balance between surface and structured spaces must be achieved which minimizes parking penalty yet recognizes that the entire marketing of the development can be placed at risk if too much of the undeveloped land area is committed to parking uses. This is particularly relevant with respect to waterfront property which should be utilized, as much as possible, for uses other than parking. Hence, the surface parking included in this Plan is an interim use, until a time when parking can be accommodated in other ways.

2. Uses

a. Marina

Market Analysis

Conclusion

Marina development could easily be supported in this location by the market and would lend ambience and image in the marketing of other development on the site.

Findings

- o A marina would enhance the desirability of other uses such as housing, restaurant, and offices.

- o Prior studies have identified a large existing demand for marina slips in the Inner Boston Harbor. The number of slips in Boston Harbor marinas totalled 2,092 in 1980, with 850 additional slips planned or proposed. One projection indicates a need for an additional 3,300 slips by 1985.*
- o There are currently few guest slips in Boston Harbor for people visiting Boston by boat from out of town.
- o There are no full service marinas (with fuel, boat supplies, showers, laundry, water, ice, and electricity) within the Inner Boston Harbor. Constitution marina (550 slips) offers water, electricity, showers, a laundry, and snacks in machines, but no fuel or boat supplies.

Financial Feasibility

Conclusion

Although a marina is costly to develop and produces a low return on investment, it is a most necessary component for the Plan as there is a strong demand for this use and it greatly enhances the marketability of other uses on the site.

* Parsons Brinkerhoff, Boston Downtown Waterfront Project Phase II Report, 1981.

Findings

- o Among the major reasons for the current demand for marina facilities are their high costs of development and low returns on investment.
- o Even with a strong market demand, marina use can barely support its share of penalty costs. This use, however, is highly feasible and desirable from a market point of view.

b. Residential

Market Analysis

Conclusion

Given its spectacular harbor and Boston skyline view, and its proximity to the Maverick MBTA station, housing should be a successful prime potential use on part of the site.

Findings

- o Of principal importance to any residential development of the site is the need to transform the visual image and character of the project area into an aesthetically pleasing, secure, clean, and convenient place to live. This will necessitate landscaping, site improvement, and removal of derelict piers as a precedent to residential development.

- o Developers of rental apartment units comparable in price and targeted tenancy to downtown and waterfront developments would find the site desirable. A survey of apartment complexes in the neighboring towns of Winthrop and Revere reveals a vacancy rate of less than 1% and rents averaging \$425 for a one bedroom unit and \$575 for a two bedroom unit. The 367 luxury waterfront apartments at Constitution Quarters were rented out in only 1½ years - this success bodes well for the Piers 1-5 site which has far more spectacular views of Boston Harbor.
- o Persons oriented to the airport and North Shore could represent a strong potential market. There are currently a number of two-income households with one member employed north of the city who might like an East Boston waterfront location.
- o Recent market rate apartments in Boston show rental rates ranging from \$516 for a one bedroom apartment at Exeter Towers to \$3,700 for a penthouse at the Devonshire. With current interest rates, developing moderately priced rental apartments on the site would, therefore, require subsidies through a variety of State and Federal programs.

Financial Feasibility

Conclusion

Next to commercial use, residential use in both the rental and condominium form will produce the highest revenues and assist greatly in recovering development penalty costs.

Findings

- o Rental Apartment uses can support some \$104.50 per sq.ft. of base building cost plus an additional \$5.50 per sq.ft. in parking and site preparation costs.
- o Apartment rents required to support development have been estimated at \$17.25 per sq.ft. of living area.
- o The base building costs for condominium construction have been estimated to total approximately \$140.00 per sq.ft. with support parking and site preparation costs adding an additional \$40.00 per sq.ft. to the supportable development cost.
- o Condominium sale prices required to support development costs have been estimated at approximately \$180.00 per sq.ft.

c. Commercial

Office

Market Analysis

Conclusion

Office space commensurate with a suburban product standard could be supported by the site at rents comparable to those found in analogous Cambridge or Quincy locations.

Findings

- o A ferry/water-taxi service would greatly enhance the marketability of office space in East Boston.
- o Office space should be located to the rear of Pier One where it could enjoy close proximity to public transportation and the major access point.
- o Rising rents in downtown Boston could make office space more desirable in East Boston Harborside if reasonably priced. Currently, 78% of space downtown Boston is over \$20.00 per sq.ft., compared to 64% in the Back Bay and 19% in the suburbs. Current vacancy rates are relatively low in Boston - 4.2% downtown and 1.3% in Back Bay, and high in the suburbs - 16%.
- o Rental rates downtown are as follows: existing tower buildings at \$16 to \$32/sq.ft., proposed towers at \$30 to \$45/sq.ft. and renovated buildings at \$11 to \$26/sq.ft.

- o Suburban rental rates in well located projects are \$20 to \$24/sq.ft. while well constructed first class projects in fringe locations are leasing at \$16 to \$18/sq.ft.

Financial Feasibility

Conclusion

- o Office use produces the highest revenues and is capable of supporting the largest amount of development penalty costs.

Findings

- o Office space can be developed for a base building cost of approximately \$107.50/sq.ft. with supportable costs for parking and site preparation estimated to total an additional \$17.50/sq.ft.
- o Office rents required to support the development have been estimated at approximately \$22.50/sq.ft. of rentable area.

Retail

Market Analysis

Conclusion

Retail development of a scale sufficient to support the immediate convenience needs of other development components could be successful.

Findings

- o There is a potential market for a boat/marine merchandise mart serving the light industrial and marina uses on the site and in the Boston Harbor. There is currently no such facility in the Boston area.
- o Although there is no pent up demand for major retail expansion in the area, an increase in the variety of merchandise selection as well as greater diversity of quality goods as warranted.

Financial Feasibility

Conclusion

Findings

d. Hotel/Boatel

Market Analysis

Conclusion

Hotel/Boatel development at any scale is not judged to be capable of generating the year-round occupancy levels needed for success.

Findings

- o The large number of hotels recently completed, under construction or proposed in Boston indicates that there may soon be an abundance of hotel rooms in Boston.
- o Any hotel development would face much competition from existing and proposed hotels in East Boston oriented to the airport.
- o A boatel oriented toward the water traveller has not been shown to be successful in the urban northeast.

Financial Feasibility

Since a hotel/boatel use was found to be not feasible from a market point of view, no further examination of its financial feasibility was carried out.

e. Restaurant

Market Analysis

Conclusion

Restaurant space capitalizing on the unique waterfront location and drawing support from other commercial, residential, and marina components of the development could be successful.

Findings

Financial Feasibility

Conclusion

Findings

f. Light Industrial*

Market Analysis

Conclusion

Water-related light industrial uses, the most suitable type of industrial activity for the site, could be attracted.

Findings

- o There are few fishing boat landings in Boston Harbor. Boston is only third or fourth in New England in terms of first landings.
- o There is a potential market for light industrial marine-related uses associated with lobstering. Lobster boats would give ambience to the area and support restaurant activities.
- o The continued development of the Fort Point Channel Area and the potential alignment of the proposed Third Harbor Tunnel through Fort Point Channel could force some fishing and lobster boats to tie up elsewhere. East Boston Piers 1-5 could be a potential site.

* Includes water-related/water-dependent uses such as: boat building and repair, production of boat supplies, warehouses and storage facilities for non-odorous, non-hazardous uses.

- o MassPort is in the process of renovating the Fish Pier in South Boston, and many industries supportive of the fishing industry are already located there. The location of light industrial uses on the East Boston piers related to the fishing industry such as boat repair and production of boat supplies would be complementary to what already exists on the Fish Pier.

Financial Feasibility

Conclusion

Light industrial uses taking advantage of the site's location for water-related activities in demand would be feasible income-producing uses for the site.

Findings

- o Industrial space can be developed for approximately \$36.00/sq.ft. of building and can support an additional \$9.00/sq.ft. in parking and site preparation costs.
- o Industrial rents required to support development have been estimated at \$6.00/sq.ft. and have been quoted on a triple net basis.

g. Other

Other uses such as community museum, community center, and open space, although not income-producing and

possibly requiring subsidies for development, are necessary for increasing the attractiveness of the site as a whole. Their presence should greatly assist the marketability of the above income-producing uses.

Conclusions

Market Analysis

- o A mix of compatible uses will assure a reasonable absorption pace and timely establishment of the project's critical mass.
- o A most compatible and market supportable mix of uses for the site would include commercial office space, residential rental apartments and condominiums, marina and related marine facilities, ancillary restaurants/retail, water-related light industrial and public institutional.
- o Several site assets will assist the successful marketing of a multi-use project by enhancing the attractiveness of the uses. These include: waterfront location of the site, exciting views to and from downtown, proximity to downtown Boston and the airport, and proximity to public transportation.
- o Inclusion of land uses which are not revenue-producing but add to the quality of life at the site such as community center, public open

→ space, museum, and ^{community center} will greatly assist in the marketing of revenue-producing uses.

- o Provision of adequate parking will be an important consideration for potential users of commercial, residential, retail, and light industrial space.
- o The establishment of water transportation via ferry/water-taxi service will increase the attractiveness of the site by making it more accessible.
- o Investment in the improvement of the visual image and character of the site is necessary particularly for marketing of residential space.
- o Marina and restaurant uses are necessary in order to enhance the marketability of both office and residential uses.
- o Primary development uses should be grouped together at one end of the site in order to create the strongest development image possible.

Financial Feasibility

- o In order to be feasible from both an overall market and financial perspective, the development must contain a mix of uses comprised of residential units, commercial office space, a modest amount of ancillary

restaurant/retail space, a marina, marine-related support facilities, water-related light industrial facilities, and public open space.

- o The minimum development square footage required for successful establishment of development credibility is estimated to be about 700,000 sq.ft. However, to construct substantially more space than this would result in a massive requirement for subsidy since penalty costs associated with site preparation for larger amounts of construction would be exorbitant.
- o Office and residential condominium uses produce the highest revenues and are capable of supporting the largest amount of development penalty costs.
- o The major portions of the structured development should be located on the existing deck of Pier 1 and on the adjacent filled land between the Pier and Marginal Street in order to minimize development penalty costs.
- o The central and easterly portion of the site, between Pier One and Boston Shipyard Corp., is the most appropriate for the open space and marine uses which are extremely important for the marketability of the development.

- o A financially successful redevelopment scheme for the East Boston piers will require the demolition and removal of existing derelict Piers 3 and 5.
- o Subsidy of approximately \$11 million will be required to fund penalty costs associated with the site.

Commercial

Commercial land use, consisting of office and retail space, is located on two areas of the site. First, on the north-westerly corner of the site bordered by Lewis and Marginal Streets is a major office complex with a small amount of associated retail; and second, at the end of Pier 4, are a restaurant and marina support facilities. The location of the office complex provides easy access for both vehicles and pedestrians using land and water transportation. The restaurant and marina facilities have the opportunity of utilizing their waterfront location for specialized activities.

Public Institutional

Included in this use are three elements: (1) a ferry terminal located at the southern end of Lewis Street; (2) a community museum adjacent to the ferry terminal and public plaza; and (3) a community center at the northern end of Pier 4. These public institutional uses will generate community-wide use, hence creating a strong relationship between the project site and the existing community.

Marina

A large commercial marina, providing a total of 525 slips, is located on both sides of Pier 1 and the western side of Pier 4. This marina responds to a

current demand for slips in the Boston Harbor, provides a strong linkage between the harbor and the existing community, and creates opportunities for water-related activities.

Light Industrial

→ Light industrial uses consist of water-related/water-dependent uses such as: boat building and repair, production of boat supplies, and warehouses/storage facilities for non-odorous, non-hazardous uses. Facilities for these uses are located in three areas at the eastern end of the project site: (1) along the eastern border of Pier 4; (2) along the water's edge between the north-east corner of Pier 4 and the Boston Shipyard Corporation, and (3) on the water adjacent to the light industrial land facilities. This use provides the opportunity for undertaking income-producing water-related activities. Since these activities exclude heavy industrial functions, they are compatible with both the residential and commercial uses on the site and the surrounding neighborhood.

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2. Open Space and Pedestrian Circulation

Open Space

Public Parks

The Plan includes two public parks. The larger park of 6.6 acres is located at the end of Cottage Street and covers portions of the backlands north of the existing Piers 3 and 4. In response to both the demands of providing low maintenance open space and the intention of creating the generic character of the typical Boston "Olmstead" park, this open space is conceived of as having a natural rather than formal park character. The second park, 1.8 acres, is located along the eastern border of Pier 4. Due to the solid, non-earth base of the Pier it will have a more formal and defined landscaped character. Both parks face the water and hence provide opportunities for various water-related activities of leisure.

Plaza

Another major open space component in the Plan is the public plaza located adjacent to the office/retail development, ferry terminal, and community museum. This open space is conceived of as a hard landscaped area with formal planting.

Walkways and Paths

The remaining public open spaces consist of the landscaped pedestrian system that runs through the site, and the floating walkways that stretch out onto the water on both sides of Piers 1 and 4.

Pedestrian Circulation

The total site is interconnected with a series of pedestrian paths that link the main development components of the project to each other and connect to the surrounding community.

The major public pedestrian route is the extension of Lewis Street Mall on the western periphery of the site. This completes the link between Maverick Square, the Maverick MBTA station, and the waterfront where the ferry terminal and community museum are located. The section of the link within, and beside the project site is conceived of as a hard landscaped, partially covered pedestrian route that is adjacent to the access road that services both the museum and ferry as well as any proposed development on the waterfront property adjacent to Pier 1.

From Lewis Street Mall a hard surfaced and landscaped waterfront pedestrian route winds eastward along the complete length of the waterfront until the last section where the light industrial facilities are located. The total length of this route measures some eight-tenths of a mile.

Connecting onto the waterfront pedestrian routes are a series of floating walkways that act as both a public amenity and as breakwater elements that protect the marina activities. These walkways will offer the public the opportunity to have direct contact with the water and its associated activities. There is approximately six-tenths of a mile of these floating walkways provided around the site.

Minor public pedestrian routes link both the development components and the major pedestrian routes to the internal and external road systems. These are primarily hard surfaced and landscaped, and mainly occur within the road right-of-ways.

The major designated public open spaces do not have a structured pedestrian route system apart from entry points; hence, the eventual routes will be user generated.

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3. Transportation

Vehicular Access and Circulation

Vehicular access to and circulation within the project area is provided by four access roads to the site.

The first road, Lewis Street, although external to the project site provides access to the ferry, museum, and the local retail space included in the major commercial development. This road is a two-way wooner street that terminates in a turn-around. Since no parking will be provided on it and it will be designed to limit the speed and entry of vehicles, traffic is expected to be minimal, hence eliminating danger to pedestrians.

The second road is the extension of Orleans Street through the site to the end of Pier 1. The northern section of this road provides access to parking facilities on either side, and its continuation provides access to the residential parking on Pier 1.

The third road connects Marginal Street with the length of Pier 4 and provides access to parking facilities on both sides, the light industrial uses, community center, and marina/restaurant development at the end of the pier.

The fourth road connects the east end of Marginal Street to the light industrial uses and the associated parking. It is a minor two-way loop road that connects back to the road accessing Pier 4.

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Parking

The Plan provides for a total of 2,200 on-site parking spaces to meet the parking space requirements of four primary building uses: commercial - office/retail, residential, marina, and light industrial.

An important objective of this Plan is to eliminate surface lots whenever possible and meet all parking requirements through structured and depressed, landscaped parking.

Traffic Generation - Impact on Area

An extensive analysis, estimating the traffic impacts of the Plan on the local street system was carried out and recommendations of access options designed to lessen adverse impacts were made.

The study assessed the effects of the proposed development traffic on Jeffries Point intersections. The levels of traffic generated by the project estimated for each major component of the development, both in terms of total daily vehicle trips and peak-hour morning and afternoon, in and out, were as follows:

Use	Vehicle Trips*				
	Daily	AM		PM	
		In	Out	In	Out
Office/Retail	4,920	760	160	120	560
Residential	1,830	30	120	120	60
Marina/ Restaurant	540	15	4	27	18
Industrial	76	12	3	5	9
TOTAL	7,366	817	287	272	647

* Excluded from these estimates is the ferry terminal.

The trip generating characteristics of the ferry terminal are more dependent upon the amount of parking which would be supplied in the area for modal transfer and must take into consideration the ferry fare and parking costs as opposed to transportation cost through the tunnel and parking costs in downtown.

Also excluded from these estimates is an allowance for modal split. It is anticipated that the proximity of the site to the Blue Line and bus facilities located at Maverick Station, and the potential for ferry service, may somewhat reduce the demand from the residential units. However, no reduction has been made for site-generated traffic due to this potential, and remains as a contingency for when plans for the ferry terminal are more advanced.

The analysis concluded that it is not essential that a new access road be provided to the site through the development of the existing Conrail right-of-way. Findings indicated that the traffic generated by the new development could, in fact, be accommodated on the existing project area road system by the implementation of a relatively simple low-cost two-stage improvement program as follows:

1. Implementation of a one-way circulation pattern with Bremen Street one-way south bound from Porter Street to Marginal Street, and Orleans Street one-way northbound from Marginal Street to Porter Street.
2. Installation of traffic signals at intersections showing a definite need, beginning one or two years after Stage One is put into operation and equilibrium has been established.

NEED MAP SHOWING IMPACT ON AREA
TRAFFIC & RECOMMENDED CHANGES

4. Urban Design and Environmental Impacts Urban Design

Massing and Built Form

The variation in the massing and form of built space in the development is expressed by three components of the Plan: (1) the commercial development; (2) the residential development; and (3) other elements such as the community center, marina, restaurant, light industrial uses, and community museum.

Commercial Development

The largest built space is the commercial development located adjacent to Lewis Street. Its massing and built form responds to three urban design considerations. First, in response to the intention of developing Lewis Street into an active pedestrian and vehicular corridor which has a concentration of retail and office activities, the building mass is developed up to the Lewis Street edge and also incorporates a covered passageway for pedestrians that links to the ferry and museum complex. Second, in response to the community requirements of having a direct visual connection between the residential area along Marginal Street and the skyline views of downtown Boston, a strong diagonal massing to the waterfront side of the development is formed. Third, in response to the concerns of the community with respect to the potential massing along Marginal Street, the massing is stepped down toward Marginal

Street in only one small section. Generally, the development forms its largest mass in the middle of the site and steps down and outward in all directions. Also as a connecting and unifying element, glazed pedestrian walkways are provided on the edges and through the development linking to the ferry and museum complex.

Residential Development

The other significant built space component is the residential development on Pier One. It reflects, and has also been formed with respect to three urban design considerations. First, a view corridor is provided down the center of the pier from the main body of the site to the Inner Harbor. Second, a diagonal view corridor is provided from Marginal Street between the commercial and residential developments to the downtown Boston skyline. Third, the overall massing is built up from the landside of the pier and peaked at the center. Overall, the intention is to mass the residential development in a varied form which slopes down toward the water's edge.

Other Elements

The remaining built space such as the community center, marina, restaurant, light industrial uses, and community museum are small scale, one or two stories, and express no overriding built form principles.

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Environmental Impacts

Environmental elements such as views, winds, shadows, navigation, and aviation were taken into consideration when determining the massing and form of the built space in the Plan. An attempt was made to minimize the adverse effects related to these elements. The resulting environmental impacts are as follows:

Views

An important objective in the massing and forming of built space was to minimize potential view obstruction to downtown Boston and the Inner Harbor, thereby maximizing the utilization of this asset by as many residents both on the site and in the surrounding community.

To achieve this objective, several view corridors and vistas stretching between a number of points on the project site and area and downtown Boston and the Harbor were identified. These were: (1) the primary view corridor stretching diagonally across the site and from Marginal Street, between the major commercial and residential development west toward the skyline view of downtown Boston; (2) a secondary series of view corridors on axis with Lewis, Orleans, Haynes, and Cottage Streets that allow visual connection between the inner surrounding community and the waterfront; and (3) water-oriented

views along the entire length of the waterfront pedestrian route especially from the floating walkways that are located on the periphery of the project.

These view corridors were then taken into consideration in the Plan by locating land uses requiring built form around and away from view corridors and major vistas, by forming a strong diagonal massing to the waterfront side of the development, by locating residential units on both sides of Pier One and maintaining a view corridor down the center of the pier from the main body of the site to the Harbor, and massing the residential development in a varied form.

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Wind

The level of development on the overall site has limited the potential for utilizing the proposed buildings as major wind breaks for the area. However, the individual groups of buildings have been organized in specific ways to mitigate major wind problems. For example, the residential development follows the perimeter of Pier 1 and creates both a relatively sheltered area in the middle of the pier and also deflects wind over the pier, therefore mitigating harsh winds along the pier's perimeter public walkway. Also proposed along Lewis Street Mall is a covered pedestrian walkway which provides environmental protection for access between the ferry, museum and commercial development as well as protecting the public plaza to a certain degree. Otherwise, across the remaining, mainly open areas of the site, wind protection will be offered by landscape elements.

Shadows

The degree and height of development on the site has inflicted almost no shadow impact on the surrounding existing development. The only proposed new development that is adjacent to existing buildings is the low-level (two-story) commercial development at the Marginal Street - Lewis Street Mall

junction, and even this has been carefully set back from the site development line to limit its impact.

Aviation

According to MassPort's planning office, if a building is to exceed 150 feet above the airfield elevation of 18 feet, the FAA decides whether the building poses a hazard to air navigation. MassPort has given assurances to the FAA that it will not erect such obstructions on its property. Therefore, construction on the East Boston Piers site has been planned observing FAA restrictions, with the tallest structure being below elevation 110 feet.

Navigation

All new development occurs within or on the established pier bulkhead line and does not restrict or impede existing shipping traffic within the Inner Harbor. The minor exception to this are the 8-foot floating walkways proposed along the ends of Piers 1 and 4.

All new commercial marina and ferry functions are located behind a proposed breakwater/public walkway structure that offers both environmental protection against rough seas and high winds, and a method of controlling access and egress (including drifting boats).

V
FINANCIAL PLAN
AND
IMPLEMENTATION

A. Project Costs

1. Total Project Costs - Public, Private,
Development, Operational

2. Development Costs

Public

Private

3. Operational Costs

Public

Private

4. Projected Public Income

City of Boston

MassPort

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BLANK

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B. Implementation

1. Parcelization

The total assigned developable portion of the 54.56 acre project is 28.19 acres (52%). This area has been divided into 19 parcels in accordance with the land use categories in the Plan. The net acreage, the square footage of each space, the floor area ratio and the net dwelling unit per acres (for residential use) for each parcel is summarized in the Table ____.

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2. Development Schedule

The development schedule for the total project is estimated to be at least seven years, contingent on both public/private funding and the private marketing process, and consists of the following steps following MassPort review of the submitted Development Plan:

1985

1. Approval and acceptance of final Development Plan;
2. Identification of all private and public development funding sources; and
3. Designation of all public and private development agents.

1986

1. Selection of planning, design, and specialist consultants required to implement the Plan; and
2. Preparation of construction documentation for first phase of construction activities.

Years 1987 to 1991

1. Preparation of all construction documentation for second and third phases of construction activity;

and
2. Completion of all activities in the development schedule.

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MISSING PHASE III

3. Phasing

The East Boston Harborside Plan will be implemented in three phases over a seven-year period.

The construction activities necessary for the implementation of the Plan have been divided into three phases in consideration of: (1) their natural order of place in sequence of construction; (2) their role in facilitating the timely marketing of subsequent construction activity; and (3) the amount of funding and the time required to obtain this funding for each activity. Activities scheduled for the three phases are as follows:

Phase I

Phase I of project implementation will include site preparation, site improvement, and initiation of construction activities.

Site preparation activities will constitute the primary step in this phase. Included will be activities such as Terminal One building demolition, demolition of Piers Three and Five, seawall repair, and repair to the piles of Piers One and Four.

Upon completion of site preparation activities, a series of site improvement activities will be undertaken. The objective will be to consolidate and improve as much of the site as possible

so as to improve and enhance its appearance, and therefore its marketability. These improvement activities which will largely occur in the east end of the project site will include: major utility installations, new park and landscaping elements, parking areas and the smaller building development such as the marina, restaurant, industrial units, and commercial marina piers.

Site improvement will then be followed by the initiation of the major building development. This will include the first stage of both the residential and commercial development and its associated structured or surface parking. Constructed will be some 624,000 sq.ft. of built space, including 137 dwelling units and 242,000 sq.ft. of major commercial/retail space. As a final step in this phase, the marina piers and public plaza associated with the residential, commercial development, ^{the} community museum and ferry terminal will be implemented.

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Phase II

Phase II activities will consist of the continuation of the commercial and residential development and a number of smaller, remaining elements.

The office, retail and residential construction activity in this phase will add to the development some 403,500 sq.ft. of built space including 163 dwelling units and 158,000 sq.ft. of commercial space. Concurrent with the completion of these uses will be the completion of their associated parking and marina facilities.

The latter part of this phase will entail the construction of the remaining smaller elements of the Plan. This will include the community center and its marina, and the remaining industrial units, and their associated parking.

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MISSING PHASE III
NARRATIVE AND MAP

4. Interim Uses

- o What would be viewed as acceptable
- o Can be done as right by MassPort
- o Areas that make sense based on our phasing.

5. Funding

In order to provide the desired and necessary project amenities that will ensure development viability, it is important that efforts be made to work with various groups, agencies, and departments to secure funding for the needed area and site improvements.

The Development Plan outlined in this report estimates the potential public funding needs associated with the site preparation to be approximately 11 million dollars. In addition to these site preparation costs, the project includes, within the site boundaries, some \$7.3 million of publicly-funded facilities.

Sources of funding which will be explored include:

- o Economic Development Administration
- o Urban Development Action Grants;

- o Community Development Block Grants;
- o Coastal Zone Management;
- o Federal Highway Administration;
- o Capital Budgeting;
- o Forms of Revenue Sharing;
- o Heritage Parks

6. Developer Selection Process

The BRA will initiate the developer selection process including the preparation of developer's kits to solicit developer proposals for the project in conformance with this Development Plan.

7. Provision for Termination of Plan

VI
CONCLUSION

CREDITS

The preparation of this document was financed in part through funding provided to the Boston Redevelopment Authority by the Massachusetts Port Authority.

BOSTON REDEVELOPMENT AUTHORITY

Stephen Coyle, Director
Robert L. Farrell, Chairman
Joseph J. Walsh, Vice Chairman
James K. Flaherty, Treasurer
Clarence J. Jones, Member
William A. McDermott, Jr. Member
Kane Simonian, Secretary

CONTRIBUTING STAFF

Philip Zeigler, Planning Director
Gary Brown, Project Director
Richard Shaklik, Planning Officer
Charles Studen, Planning Officer
Emel Derbentli, Planning Officer
Sandra Swaile, Architect
Bill Barbato, Engineer

MASSACHUSETTS PORT AUTHORITY

David W. Davis, Executive Director
Robert M. Weinberg, Chairman
John A. Vitagliano, Vice Chairman
Charles M. Raso, Member
Jacquelyn R. Smith, Member
E. Paul Robsham, Member
John W. Arata, Member
Miguel Satut, Member

CONTRIBUTING STAFF

Norman Faramelli, Planning Director
Alice Boelter, Senior Port Planner

CONSULTANT TEAM

Principal Consultant

ARTHUR ERICKSON ARCHITECTS
Architectural & Planning Consultants
2412 Laurel Street
Vancouver, British Columbia
Canada V5Z 3T2

Arthur Erickson, Principal
Eva Matsuzaki, Associate
Jonathan Barrett, Urban Design

CONTRIBUTING CONSULTANTS

HENDERSON PLANING GROUP
Planning Consultant

Philip Henderson, Partner
William A. Yuhas, Associate

SIPPICAN CONSULTANTS
INTERNATIONAL, INC.
Engineering Consultant

William LeMessurier, Chairman
Bill Thoen, Partner
Bob Lacourse, Vice President

MINOT, DEBLOIS & MADDISON, INC.
Economics and Marketing Consultant

Richard Bonz, President
Pamela McKinney, Vice President

VANASSE HANGEN ASSOCIATES, INC.
Traffic Consultant

Richard Hanger, Principal
James DeAngelo, Associate

THE SCHNADELBACH PARTNERSHIP
Landscape Consultant

Terry Schnadelbach, Principal

JASON M. CORTELL & ASSOCIATES
Environmental Planning Consultant

Carlton L. Noyes, Director, Water
Quality Group

PERINI CORPORATION
Costing and Construction Consultant

Norman Boiani, Project Manager, Eastern
Building Division
David Rocheford, Senior Estimator

MCPHAIL & ASSOCIATES
Geotechnical Consultant

Bob McPhail, Principal

APPENDICES

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PARKING REQUIREMENT SUMMARY

<u>Use</u>	<u>Factor</u>	<u>Total No. of spaces Required</u>	<u>No. of Structured Spaces</u>	<u>No. of Surface Spaces (Temporary)</u>	<u>Surface Lots</u>
Commercial Office/Retail ¹	370,000 sq. ft.	1,200	355	845	1,2,3,4,5
Residential ²	300 D.U.	450	450	-	-
Marina ³	525 slips	525	-	525	10,11,12,4,5
Light Industrial ⁴	75 People (est.)	45	-	45	5,13,14
Total		2,220			

1. Parking Ratio Standard: 3.0 parking spaces/1,000 sq.ft. spaces to be on reserve during work hours. Structured space one level below grade constituting 145,000 gross sq.ft. (51%) of the total support built space.
2. Parking Ratio Standard: 1.5 parking spaces/dwelling unit. Structured parking divided in two similar sized areas below the units but above the pier deck, constituting 137,000 gross sq.ft. (49%) of the total support built space.
3. Parking Ratio Standard: 1.0 parking space/slip. It is assumed that the 125 slips associated with Pier 1, will be utilized by the residential development and therefore require no separate parking provision other than that already included in the residential development. The remaining 400 spaces associated with the marina beside Pier 4 are provided by areas 10, 11, 12, and by multi-use of areas 4 and 5. Although areas 4 and 5 are primary allocated to the use of the commercial/retail development, this is mainly a weekday, day-time use, whereas the major demand for marina parking will occur during weekend and holiday periods.
4. Parking Ratio Standard: 0.6 parking spaces/employee.

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E. Boston Development
Plan

AUTHOR

TITLE

DATE
DRAWN

BY POWER'S NAME

1/3 L. Burke

